

# Does Innovation Lead to Prosperity for All?



THE WORD “INNOVATION” has become the new mythical silver bullet to fix the world economy.

Without a doubt, exciting new technologies, including in robotics, 3-D printing, and gene therapy, are impressive. Blood markers and the ability to reengineer genetic DNA have achieved fantastic breakthroughs. Nanotechnology and biotechnology have improved living standards significantly. In the future, machine-to-machine interfacing and the use of ultra-powerful quantum computing will know no bounds.

But will these innovative breakthroughs raise real income for average working families? The 1930s saw an outbreak of impressive technological progress. The Great Depression continued anyway.

The battle lines are drawn. Some theorists believe new technological innovations that lead to productivity increases are actually the economy’s growth and job killers. They cite the fears of many families that someday their kids in the workforce could be replaced by a machine.

Others argue that the economy benefits from as many innovative startup jobs as possible. They stress evidence showing that a half million new tech startup jobs produce 2.5 million other new jobs.

Still others argue that there is not enough innovation. The world’s efforts at innovation are on a quality decline, they say, and so therefore is the world economy.

Of course, “productivity,” as the writer Adam Davidson puts it, “is a remarkable thing. Only through productivity growth can a wage-earner’s quality of life improve.” But are wage-earning families seeing the full benefits of today’s revolution in innovation?

The year 2012 produced a startling contrast. Eastman Kodak, once with a payroll of 145,000, filed for bankruptcy. Around the same time, Facebook bought a company called Instagram for a billion dollars. What was Instagram? A photo-oriented business...with only thirteen employees.

This issue is complex. But if you were asked by today’s G-20 leaders for guidance on how best to approach the issue of innovation as it affects the real economy, what would that advice be? Move more cautiously or full steam ahead, the more innovation the better? Then again, do the G-20 leaders have any say in the matter?

**Nearly twenty noted observers offer their views.**



*Innovation is being unfairly implicated. To give up on innovation is to give up on the future.*

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The fact that so many people are asking “does innovation lead to prosperity for all” is in itself troubling. As technology historian Robert Friedel writes in *A Culture of Improvement*, “Since the end of World War II, the impressive achievements of technology along with the rapidly expanding scale of Western economies had reduced the influence of technological critics to the fringe of public life.” Indeed, it was this cultural acceptance, even embrace, of innovation, that enabled American innovation to flourish.

But today innovation is being implicated in the ills of the West: global warming, the rise of the “1 percent,” and a generalized sense of malaise. But to give up on innovation is to give up on the future.

Innovation is being charged on at least two counts. It’s disruptive, and it no longer helps average workers. Regarding the first, people always have and always will be hurt by innovation. The invention of the automatic bowling pin setter put tens of thousands of pinsetters out of work after World War II. But it also lowered the price of bowling for tens of millions of Americans. That’s why Joseph Schumpeter coined the term “creative destruction.”

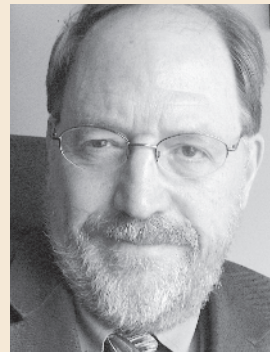
For those who argue that that innovation eliminates jobs, they only see first order effects. They overlook that innovation leads to lower prices and that consumers spend those savings, in turn creating additional jobs. That’s why historically there has been no correlation between productivity growth and unemployment.

With regard to the second charge, as labor economist Stephen Rose has shown, while income inequality has gone up, technology-induced productivity still benefits working Americans. If we really want to tackle the problem of inequality, we should take steps such as reining in the financialization of the economy and increasing taxes on the wealthy. But opposing innovation will hurt the 99 percenters a lot more than the 1 percenters. Besides, wage earners would see even more benefit from innovation if we had more and broader innovations—we need more than Web 2.0 social networking apps to drive prosperity.

What is the alternative to spurring more innovation? We would see slower discovery of life-saving medicines, continued anemic steps toward getting cheap clean energy, and real robotics to automate more work forty years away instead of twenty. Without innovation, living standards and quality of life for future generations will be even worse.

Finally, can G-20 leaders do anything about innovation? They certainly can slow it down through restrictive regulations, as we have seen in Europe. When French Industry Minister Arnaud Montebourg said that when it comes to innovation that can destroy existing companies, “Well, we have to go slowly,” going slowly will mean “growing slowly.”

But policymakers can also speed up innovation by ensuring that the global trading system eschews “innovation mercantilist” policies and that nations expand research and development tax incentives and public funding of research. In short, we need more innovation, not less.



*Schumpeter and John Stuart Mill were both correct.*

**JAMES K. GALBRAITH**  
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Does innovation lead to prosperity for all? John Stuart Mill thought otherwise: “It is questionable if all the mechanical inventions yet made have lightened the day’s toil of any human being.” Karl Marx, picking up the theme in *Capital*—for the nineteenth century—wrote: “That is, however, by no means the aim” of innovation. New technology reduces the work required to sustain the workers and increases the share going to the boss.

Seven decades later, Joseph Schumpeter challenged this view. Working class living standards were rising, and the rise could continue. Capitalism, he wrote, triumphed not by providing “silk stockings for queens, but in bringing them within the reach of factory girls.” Not for every-